

ABSTRACT

A valve assembly connects into a drill string for opening and closing at least one inner passage within the drill string of the drill string. The valve assembly includes an annular valve assembly carried in an annular passage that moves between the open and closed positions in response to downward fluid pressure from the surface through the annular passage. The valve assembly also includes an inner valve assembly carried in an inner passage of the drill string. The inner valve assembly is a two-way valve that is actuated between open and closed positions by pressure pulses from the surface through the inner passage. The valve assembly can be used within coiled tubing.